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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,676

02/13/2004

Takeshi Nagahori

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EXAMINER

TON, MY TRANG

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,676

Applicant(s)

NAGAHORI ET AL.

Examiner

My-Trang N. Ton

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


MY-TRANG N. TON
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 remain rejected under 35 U.S.C. 102(e) as being anticipated by
Dyer et al (US 2005/0069394) for the reasons recited in the last Office action.

Dyer et al disclose in Fig. 3 a hybrid system including:

a current driver (Main DAC) for a transmit signal;

a load resistor (R1) connected to a first common node (node connected to one end of R1) connected to a one terminal (+) of the current driver (Main DAC);

a first end of a replica resistor (R1) connected to the first common node (the node connected to one end of R1);

a transmission path (path ITX, IRX, Cbig, ZL) connected to the first common node (the node connected to one end of R1);

a second end of the replica resistor (R3) connected to a second common node (node between R3, R4 connected to Receiver Sampler);

replica driver (Replica DAC) connected to the second common node (via R4) and connected to the second end of the replica resistor (R3); and

the second common node (the node between R3, R4 connected to Receiver Sampler), connecting the replica driver (Replica DAC) to the replica resistor (R3 via R4) and being connected to a receive side (To Receiver Sampler) as recited in claim 1.

Regarding claim 2: a current ratio between the current driver (Main DAC) and the replica driver (Replica DAC) is inherently seen represented by a complex number (see Exemplary Config. 1 and Exemplary Config. 2). Because the structure of the claims is fully met by Dyer, the recited function will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430.

Regarding claim 3: the complex number has a real part and an imagine part, at least one of the real part and the imaginary part being variable (because the structure of the claims is fully met by Dyer, the recited function will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430).

Regarding claims 4-5 are similarly rejected as claims 2-3.

Elements R4 or C2 read on a circuit element as recited in claim 6.

The circuit element (C2) is variable as recited in claim 7.

The replica driver comprises a digital filter circuit (is seen as Replica DAC) as recited in claim 8.

Claim 9 is similarly rejected as claim 3.

The current driver and the replica driver are implemented by a DAC of a current output type (Main DAC and Replica DAC) as recited in claim 10.

Regarding claim 11: The replica driver is a digital to analog converter (Replica DAC) connected to a digital filter (inherent seen in Fig. 3).

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Claim 12 is similarly rejected as above claim 1: a current driver (Main DAC); a load resistor (R1); a first common node (the node connected to one end of R1), a replica driver (Replica DAC); a replica impedance (R3); a transmission path (path ITX, IRX, Cbig, ZL), and a second common node (node connected to Receiver Sampler).

Regarding claim 13: because the structure of the claims is fully met by Dyer, the recited function recited therein will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430.

Response to Arguments

Applicant's arguments filed 3/23/06 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meet the claimed limitation as rejected.

Applicant's argument – Dyer fails to disclose “a replica driver connected to a second common node, wherein the second common node is for connecting to the receive side”.

Examiner's response - As stated above, Dyer clearly teaches a replica driver (Replica DAC) connected to (via R4) a second common node (the node between R3, R4 connected to Receiver Sampler), wherein the second common node (the node between R3, R4) is for connected to the receive side (To Receiver Sampler) as shown in fig. 3 of Dyer. It should be noted that claim 1 (or claim 12) is not seen to require the replica driver is “directly connected” to the second common node. Therefore, these claims are not seen to distinguish the present invention over the prior art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



My-Trang N. Ton
Primary Examiner
Art Unit 2816

June 8, 2006